

Scaled data based on original data using
LM-79-08 Approved Method: Electrical and Photometric Measurements of Solid-
State Lighting Products

Test Report Prepared for
Cooper Lighting Solutions
(formerly Eaton)

Brand: INVUE

Report Number: P368335

Luminaire Tested: **MSA-SA4B-727-U-T4W-HSS**

Issue Date: 12/2/2019

Test Information

Test Method: LM-79-08
Report Number: P368335
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-1910-543-15)
Test Lab: INNOVATION CENTER
Issue Date: 12/2/2019
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: INVUE
Catalog Number: MSA-SA4B-727-U-T4W-HSS
Description: MESA POST TOP DECORATIVE LUMINAIRE. (4) LIGHTSQUARES WITH 16 LEDS EACH AND TYPE IV WIDE OPTICS WITH HOUSE SIDE SHIELD
Light Source: -
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 12250 lumens
Efficiency: N/A
Efficacy: 71.6 lumens/watt
Luminous Opening: Rectangular (W 1' x L: 1' x H: 0')
IES Classification: Type IV - Short
BUG Rating: B1 - U0 - G3

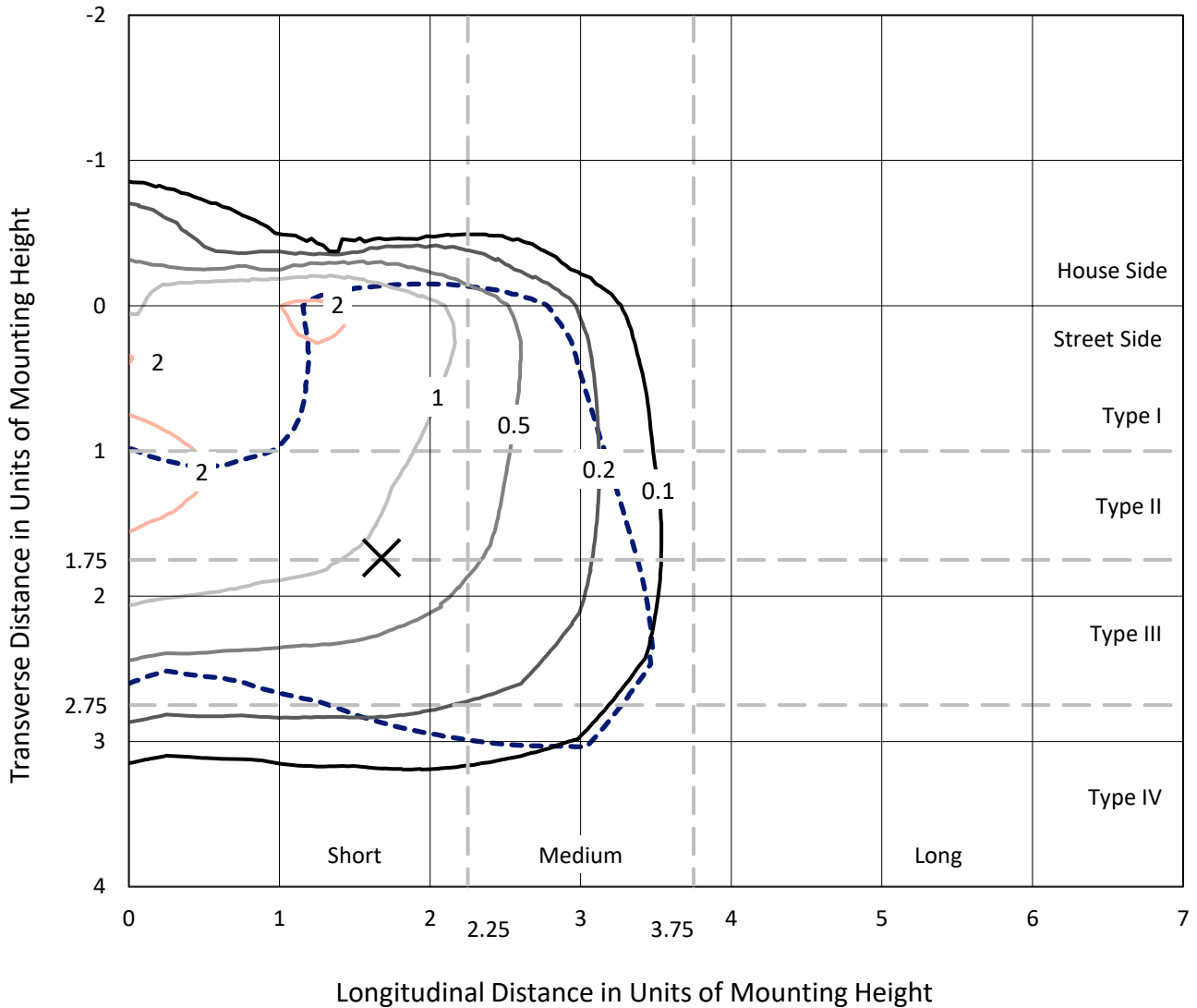
Input Watts (W): 171
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 28.75 FT



REPORT NUMBER: P368335
 CATALOG NUMBER: MSA-SA4B-727-U-T4W-HSS

Iso-Footcandle Lines of Horizontal Illumination

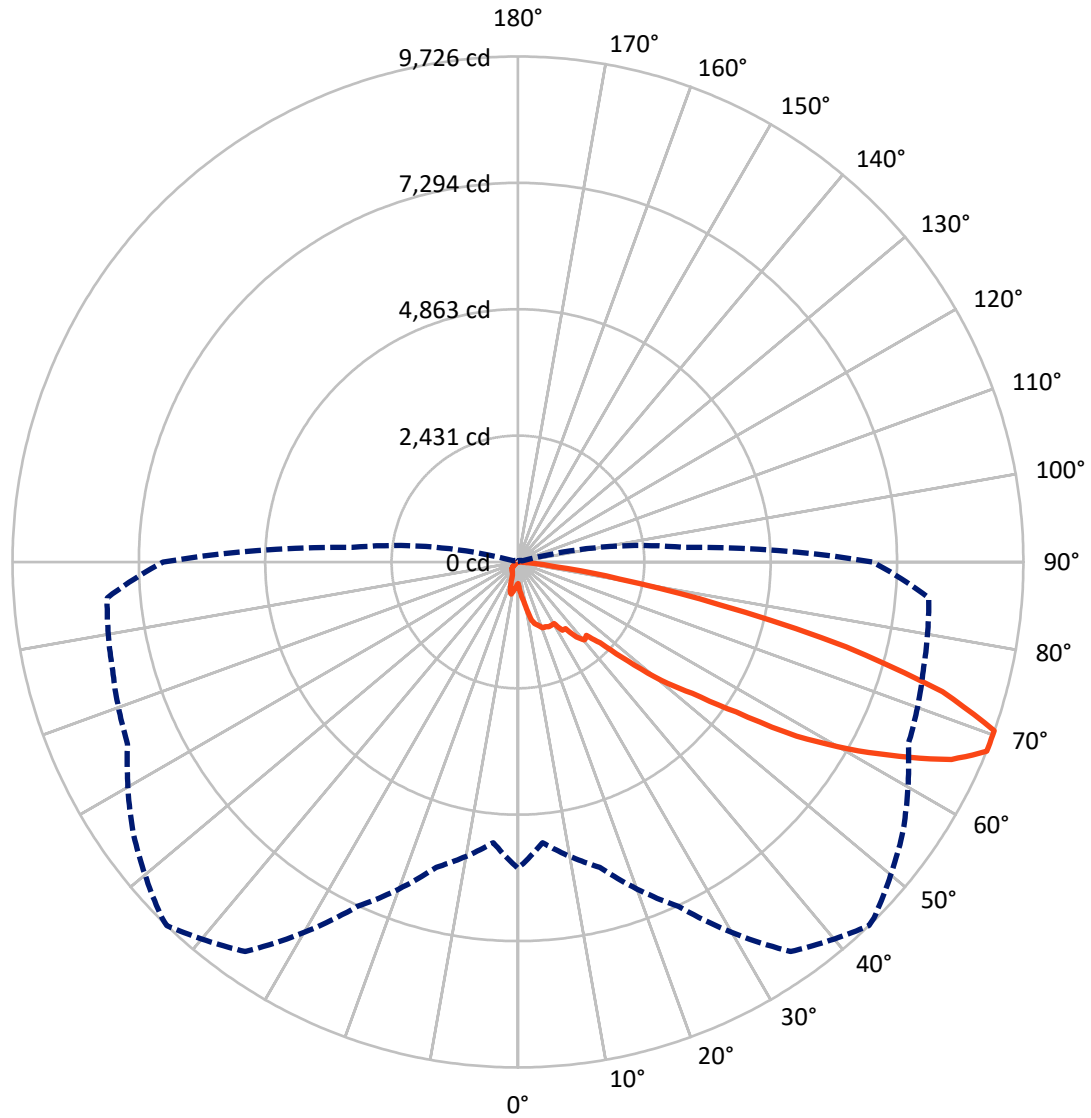
✕ Max cd
 - - - 1/2 Max cd



Based on 25 foot mounting height. Maximum calculated value = 2.8 fc
 Type IV - Short - N/A

REPORT NUMBER: P368335
CATALOG NUMBER: MSA-SA4B-727-U-T4W-HSS

Luminous Intensity Polar Plot



— Vertical Plane Through 44-Deg Lateral - - - Horizontal Cone Through 67.5-Deg Vertical

REPORT NUMBER: P368335
 CATALOG NUMBER: MSA-SA4B-727-U-T4W-HSS

FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	1244.4	0.0	1244.4
	% Fixture	10.2	0.0	10.2
Street Side	Lumens	11005.6	0.0	11005.6
	% Fixture	89.8	0.0	89.8
Total	Lumens	12250.0	0.0	12250.0
	% Fixture	100.0	0.0	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	61.2	0.5
10°-20°	256.1	2.1
20°-30°	453.7	3.7
30°-40°	737.4	6.0
40°-50°	1475.7	12.0
50°-60°	3027.4	24.7
60°-70°	4158.7	33.9
70°-80°	1954.7	16.0
80°-90°	125.2	1.0
90°-100°	0.0	0.0
100°-110°	0.0	0.0
110°-120°	0.0	0.0
120°-130°	0.0	0.0
130°-140°	0.0	0.0
140°-150°	0.0	0.0
150°-160°	0.0	0.0
160°-170°	0.0	0.0
170°-180°	0.0	0.0
0°-90°	12250.0	100.0
0°-180°	12250.0	100.0

Coefficient of Utilization

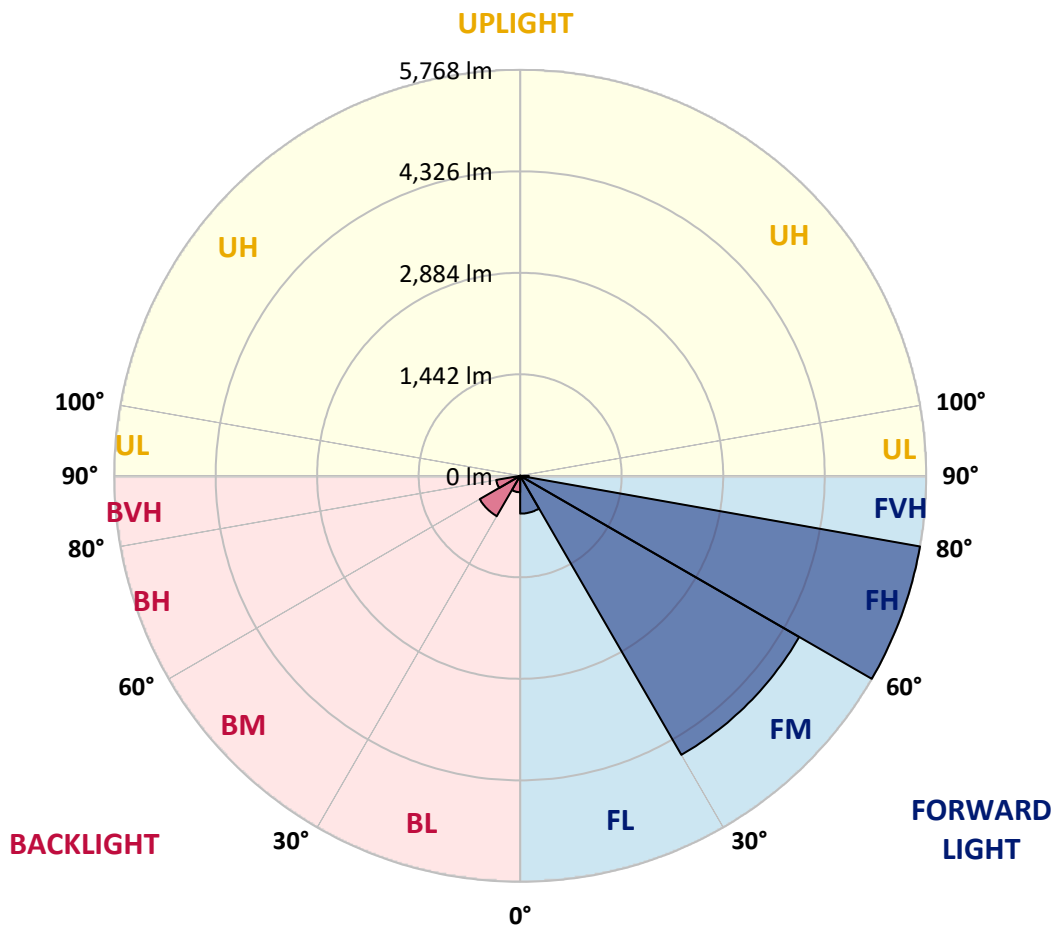


REPORT NUMBER: P368335
 CATALOG NUMBER: MSA-SA4B-727-U-T4W-HSS

LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone	Lumens	% Fixture	Zone Rating/Lumen Limit		
			B	U	G
FL (0°-30°)	537.3	4.4			
FM (30°-60°)	4577.6	37.4			
FH (60°-80°)	5768.1	47.1			G3/7500
FVH (80°-90°)	122.6	1.0			G2/225
BL (0°-30°)	233.6	1.9	B1/500		
BM (30°-60°)	662.9	5.4	B1/1000		
BH (60°-80°)	345.3	2.8	B1/500		G1/500
BVH (80°-90°)	2.6	0.0			G0/10
UL (90°-100°)	0.0	0.0		U0/0	
UH (100°-180°)	0.0	0.0		U0/0	

BUG Rating: B1-U0-G3
 Type IV Short





REPORT NUMBER: P368335

CATALOG NUMBER: MSA-SA4B-727-U-T4W-HSS

CANDELA DISTRIBUTION (FULL):

	0°	5°	15°	25°	35°	44°	45°	55°	65°	75°	85°
0°	412.7	412.7	412.7	412.7	412.7	412.7	412.7	412.7	412.7	412.7	412.7
2.5°	524.9	508.0	483.7	489.1	491.8	499.2	499.9	490.4	463.4	456.0	489.1
5°	735.6	694.4	687.0	671.4	640.4	623.5	619.4	636.3	614.7	607.9	616.7
7.5°	939.6	904.5	866.0	845.0	780.2	740.3	738.3	745.1	749.1	725.5	737.6
10°	1075.4	1036.9	1028.8	979.5	923.4	913.9	909.9	884.2	863.3	845.7	787.0
12.5°	1198.3	1197.7	1212.5	1141.6	1132.8	1142.3	1138.9	1047.0	1026.1	952.4	935.6
15°	1361.8	1402.3	1338.2	1278.7	1203.1	1235.5	1226.7	1167.9	1153.7	1103.8	1031.5
17.5°	1531.3	1542.2	1434.7	1343.6	1324.0	1281.4	1290.2	1269.3	1197.7	1237.5	1165.9
20°	1535.4	1559.0	1444.2	1293.6	1353.7	1351.7	1352.3	1332.1	1237.5	1330.7	1265.2
22.5°	1592.1	1534.0	1427.3	1331.4	1342.2	1352.3	1363.1	1338.2	1317.9	1340.9	1353.0
25°	1569.2	1546.2	1443.5	1380.0	1369.9	1378.0	1380.7	1412.5	1399.6	1455.0	1424.6
27.5°	1628.6	1595.5	1411.8	1423.3	1387.5	1378.0	1361.8	1467.8	1505.7	1461.8	1542.8
30°	1730.6	1725.9	1466.5	1483.4	1455.7	1372.6	1415.8	1554.3	1601.6	1574.6	1673.2
32.5°	1890.0	1906.2	1626.6	1517.2	1531.3	1568.5	1552.3	1554.3	1673.9	1734.0	1812.3
35°	2116.3	2107.5	1782.6	1645.5	1571.2	1577.3	1600.2	1710.3	1865.0	1861.0	1944.1
37.5°	2560.8	2464.9	2058.9	1776.5	1798.8	1829.2	1812.3	1960.3	1975.1	1980.5	2179.1
40°	3216.0	3088.4	2494.6	2052.8	1838.0	1972.4	1964.3	2000.8	2100.1	2137.3	2427.0
42.5°	4079.3	3907.7	3261.3	2560.8	2027.2	1934.6	1984.6	2053.5	2387.2	2493.2	2810.7
45°	5033.1	4685.9	4025.9	3284.9	2501.4	2214.3	2252.1	2380.4	2843.2	3018.8	3369.4
47.5°	5651.2	5345.9	4783.2	3926.6	2995.8	2845.2	2848.6	2876.3	3378.8	3704.4	4174.6
50°	6188.2	5863.3	5341.1	4597.4	3870.6	3585.5	3520.7	3393.0	4061.1	4506.2	5027.7
52.5°	6946.1	6566.5	5899.1	5384.4	4868.3	4196.8	4173.9	4217.1	4865.6	5333.7	5902.5
55°	7629.7	7168.3	6531.3	6207.1	6005.8	5095.2	5114.8	5187.1	5898.4	6146.3	6680.6
57.5°	7931.6	7431.8	7104.2	6958.3	6850.9	6322.6	6256.4	6213.2	6713.1	6807.6	7496.0
60°	8129.6	7654.0	7505.4	7539.2	7864.8	7304.1	7244.0	6992.7	7387.2	7464.9	8226.8
62.5°	8004.6	7570.9	7602.7	7884.4	8607.1	8238.3	8064.7	7644.6	7938.4	8001.2	8751.7
65°	7217.6	6765.7	7173.7	7855.3	9173.2	9164.4	9084.0	8246.4	8243.7	8324.1	8792.2
67.5°	5895.7	5421.5	6081.5	7310.9	9149.6	9725.8	9687.9	9044.9	8287.6	8072.8	7934.3
70°	4098.9	3687.5	4436.0	6037.6	8334.2	9721.7	9660.9	9581.2	7940.4	6948.8	6151.7
72.5°	2129.8	1903.5	2600.7	4160.4	6643.5	8541.6	8742.2	8611.2	6779.9	5048.6	3622.7
75°	723.5	649.1	1072.7	2208.2	4416.4	6522.6	6757.6	6624.6	4604.8	2708.7	1432.7
77.5°	280.3	260.7	384.4	896.4	2215.6	3974.6	4229.9	4094.2	2469.6	992.3	337.1
80°	159.4	154.0	212.1	403.9	976.8	1977.2	2156.9	1956.2	890.3	334.4	87.8
82.5°	67.5	69.6	118.2	218.2	491.1	697.8	778.2	709.9	372.9	229.0	32.4
85°	14.9	18.2	56.1	121.6	206.0	199.3	208.7	231.7	229.0	168.2	14.2
87.5°	0.0	0.0	17.6	33.1	49.3	32.4	25.7	45.3	70.3	67.5	6.1
90°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0



REPORT NUMBER: P368335
 CATALOG NUMBER: MSA-SA4B-727-U-T4W-HSS

CANDELA DISTRIBUTION (continued):

	90°	95°	105°	115°	125°	135°	145°	155°	165°	175°	180°
0°	412.7	412.7	412.7	412.7	412.7	412.7	412.7	412.7	412.7	412.7	412.7
2.5°	495.1	488.4	445.8	443.1	445.8	438.4	437.7	422.2	423.5	458.7	461.4
5°	616.7	583.0	546.5	535.0	524.2	499.9	513.4	513.4	513.4	535.7	542.4
7.5°	726.8	681.6	630.2	587.0	545.1	514.7	535.7	550.5	559.3	588.4	601.9
10°	776.8	732.2	686.3	624.8	592.4	580.9	556.6	543.8	559.3	553.2	560.7
12.5°	883.5	843.0	764.0	700.5	676.2	637.0	565.4	515.4	482.3	476.9	475.5
15°	987.6	962.6	856.5	771.4	687.0	596.5	474.2	408.0	372.9	366.8	367.5
17.5°	1119.3	1083.5	927.5	805.2	662.0	499.2	366.1	309.4	306.7	321.5	322.9
20°	1207.1	1148.3	963.3	777.5	579.6	377.6	286.4	272.9	294.5	321.5	318.8
22.5°	1290.9	1227.4	1010.5	753.2	449.2	286.4	263.4	264.8	283.0	312.1	319.5
25°	1346.3	1323.3	1068.6	696.4	342.5	247.9	252.0	262.1	277.6	305.3	305.3
27.5°	1513.1	1405.7	1061.9	586.3	263.4	231.0	240.5	253.3	261.4	294.5	297.9
30°	1614.4	1579.3	1097.0	474.2	231.0	209.4	227.6	239.1	244.5	282.4	283.7
32.5°	1738.7	1661.0	1139.6	349.9	214.8	208.1	204.0	212.8	228.3	261.4	263.4
35°	1890.0	1867.1	1078.8	274.9	209.4	194.5	186.4	191.2	201.3	223.6	228.3
37.5°	2198.7	2062.3	1042.3	235.7	209.4	189.8	181.0	168.9	170.2	185.8	194.5
40°	2458.8	2416.9	940.3	229.0	199.9	183.1	161.4	146.6	136.4	141.2	144.6
42.5°	2936.4	2742.5	808.6	225.6	191.2	165.5	137.1	121.6	106.1	107.4	112.8
45°	3515.9	3097.8	691.0	222.2	185.1	147.9	115.5	97.3	81.1	81.7	87.1
47.5°	4290.1	3615.9	548.5	212.1	174.3	131.7	93.2	74.3	64.8	66.9	71.6
50°	5169.6	4070.5	433.7	196.6	161.4	116.2	75.7	60.1	56.7	58.8	64.2
52.5°	5955.2	4405.6	358.0	182.4	143.2	94.6	63.5	53.4	52.0	53.4	57.4
55°	6653.6	4600.1	299.2	166.2	122.9	76.3	57.4	49.3	48.6	48.0	50.7
57.5°	7308.8	4656.2	233.7	140.5	100.0	66.2	53.4	45.9	44.6	42.6	44.6
60°	7786.4	4560.3	171.6	112.8	81.7	60.1	50.0	41.2	39.2	35.8	37.2
62.5°	8016.8	4297.5	129.7	90.5	69.6	54.7	44.6	35.8	33.1	29.0	29.7
65°	7797.9	3864.5	102.0	76.3	59.4	45.9	37.8	30.4	27.0	23.0	23.0
67.5°	6828.6	3205.9	86.5	66.2	50.0	39.2	31.1	27.7	22.3	18.9	18.2
70°	5012.2	2306.1	74.3	58.1	43.2	33.8	26.3	25.0	21.6	18.2	16.9
72.5°	2829.0	1305.1	63.5	51.3	36.5	28.4	22.3	23.0	20.9	16.9	15.5
75°	1079.4	439.7	52.7	42.6	29.7	21.6	18.9	18.9	18.9	14.2	12.2
77.5°	267.5	112.1	41.9	34.5	23.6	14.2	15.5	16.2	16.2	12.2	8.8
80°	73.6	37.8	25.0	25.0	16.9	8.1	10.8	10.8	8.8	4.1	0.0
82.5°	27.0	14.2	8.8	10.8	7.4	2.7	4.1	2.7	2.0	0.0	0.0
85°	11.5	7.4	5.4	6.1	3.4	0.0	0.7	1.4	0.0	0.0	0.0
87.5°	4.7	3.4	2.7	2.7	1.4	0.0	0.0	0.0	0.0	0.0	0.0
90°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)